

ABSTRACT

A grating light valve is provided with a plurality of spaced reflective ribbons, spatially arranged over a semiconductor substrate, the ribbons and substrate being provided with reflective surfaces. The grating light valve is

5 configured to optimize the conditions for constructive and destructive interference with an incident light source having a given wavelength. In a preferred embodiment, one set of ribbons is moveable with respect to the substrate and the second set of ribbons. The substrate is typically provided with a protective layer, which may be thermally grown silicon dioxide or other dielectric. A conductive

10 trace is provided on the dielectric layer and grounded through the dielectric layer to the substrate, comprising a conductive trace for easy release of charge otherwise trapped on or at the dielectric layer.